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## **EXECUTIVE SUMMARY**

Date Summary Prepared: 04/19/2012

Mine Name: Levan Chicken Creek Quarry	I.D. Number: M/023/0016
Operator: SUNROC	Date Original Notice Received: 08/24/2000
Address:	County: Juab
730 North 1500 West	
P.O. Box 1955	
Orem, Utah 84059	
	New/Existing: Revision
	Mineral Ownership: USFS/FEE
Contact Person: Brent R. Sumsion	Surface Ownership: USFS/FEE
<b>Telephone:</b> 801 641-2117	Claim numbers: Security #1, UMC 117022, #2 UMC
	117023, #3 UMC 117024, # 4 UMC 117025; Chicken
	Creek 1E UMC 370875, 2E UMC 370876, 3E UMC
	370877, 4E UMC 370878, 5E UMC 370879.

Life of Mine: 13 years

Legal Description: West side pit T15S R1E SLBM Section 3 and T14S R1E SLBM Section 33

East side pit T14S R1E SLBM Section 33 and 34

Mineral(s) to be Mined: Gypsum

Acres to be Disturbed: 105.4 Acres

Present Land Use: Mining and wildlife habitat

Postmining Land Use: Wildlife habitat

Variances Granted: None.

## Soils and Geology

**Soil Description**: Soils vary according to geomorphic position in the mine area. They include xeric torriorthents, cumulic haploxerolls, and rock outcrops. Slopes vary from about four to 70 percent. The best soils tend to be gravelly clay loams at lower elevations in the facilities areas.

pH: 7.36 - 7.69

Special Handling Problems: None

**Geology Description**: At both pit locations the gypsum is in lenses of the Arapien Shale which dates to Middle Jurassic. The Pigeon Creek fault is located 1,500 feet west of the mine site and not anticipated to affect the mine.

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## **Hydrology**

**Ground Water Description**: In the canyon bottom, ground water is at depth from 80 feet to 300 feet in both water table and artesian conditions. Wells and springs in the stream alluvium or issuing geologically below both mines supply irrigation and drinking water for the town of Levan.

**Surface Water Description**: Chicken Creek is a tributary to the Sevier River. The upper Chicken Creek originates in the Manti La Sal National Forest and currently terminates near the Forest Service boundary. The Lower Chicken Creek originates in a number of flowing groundwater wells and springs between Chicken Creek Reservoir and the town of Levan. The mine has provided sediment control at both sites to prevent sediment from leaving the disturbed areas. Diversions and BTCA (Best Technology Currently Available) will provide the necessary sediment and erosion control in this steep environment to prevent impacts to surface water.

Water Monitoring Plan: City of Levan officials currently monitor Rose Bush and Tunnel Springs and will be responsible to notify both the Division of Oil, Gas, and Mining and the mining company if any problems unrelated to drought occur. All the springs occur at a lower elevation than the mine and are in the drainages.

#### **Ecology**

Vegetation Type(s); Dominant Species: West pit vegetation is mainly mountain mahogany with some pinyon/juniper forest and Gambel's oak in the upper regions. The east pit has sparse vegetation with areas of pinyon-juniper forest and Gambel's oak near the top. Other common species include slender wheatgrass, prickly phlox, Indian ricegrass, and Oregon grape.

Percent Surrounding Vegetative Cover: Total vegetation cover was measured as 42.2 percent.

Wildlife Concerns: There are four golden eagle nests within one mile of the mine. The nests will be monitored by the Forest Service, and mining activities will be modified to accommodate golden eagle nesting. Because the area contains big game winter habitat, mining operations will stop from November 15 to March 1.

Surface Facilities: The mine has mobile processing equipment (screen, crusher, conveyors, etc.), with limited fixed facilities.

#### Mining and Reclamation Plan Summary:

**During Operations**: Highwalls or significant excavations will exist on the property. The pits will have safety berms located at the top of the highwalls as needed. The west and east pits will be mined using the multiple bench approach. All mined areas will have topsoil salvaged. The pits will be mined by drilling and blasting and removing the rock. Highwall benches will be up to 40 feet tall and will be constructed so that the orientation of the bedding of the bedrock enhances their stability. The overall mined slope will not exceed 45 degrees. When the limits of the pit are reached, the pits will be graded and reclamation will commence. The east pit has a projected mine life of 128 years and the upper and lower west pit has a mine life of 26 years. No waste materials will be generated as part of mining.

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After Operations: During reclamation the pits will be blended into the surrounding topography at a maximum slope of 2H:1V for backfilled and alluvial areas and 1H:1V for smoothed bedrock highwall faces. The final slopes will have a safety factor of 1.3 or a slope angle of 40 degrees. The sites will be hydrologically stable and free draining. Except on the steeper slopes the area will be ripped and seeded with an approved seedmix. No stockpiles of unprocessed material will remain onsite. The post mining land use will be compatible for wildlife habitat and recreation.

# Surety

**Amount**: The amount has yet to be determined, The Division is awaiting concurrence from the Forest Service.

Form:

Renewable Term: